AUTHOR INDEX, VOLUME 57

Section	March	June	Sept.	Dec.
Acknowledgements	—	—	—	1279
The International Biometrics Society				1283
Book Reviews	313	644	982	1265
Corrections	—	659	—	—
Correspondence	—	643	975	—

AALEN, O. O., BORGAN, Ø., and FEKJÆR, H. Covariate Adjustment of Event Histories Estimated from Markov Chains: The Additive Approach 993
AGRESTI, A. and MIN, Y. On Small-Sample Confidence Intervals for Parameters in Discrete Distributions 963
AKRITAS, M. G. (see O'GORMAN, J. T.) 88
ALBERT, J. H. and CHIB, S. Sequential Ordinal Modeling with Applications to Survival Data 829
ALBERT, P. S., MCSHANE, L. M., and SHIH, J. H. Latent Class Modeling Approaches for Assessing Diagnostic Error without a Gold Standard: With Application to p53 Immunohistochemical Assays in Bladder Tumors 610
ALLARD, D., BRIX, A., and CHADŒUF, J. Testing Local Independence between Two Point Processes 508
ALMUDEVAR, A. A Bootstrap Assessment of Variability in Pedigree Reconstruction Based on Genetic Markers 757
ALMUDEVAR, A. Most Powerful Permutation Invariant Tests for Relatedness Hypotheses Using Genotypic Data 1083
ALTAYE, M., DONNER, A., and KLAR, N. Inference Procedures for Assessing Interobserver Agreement among Multiple Raters 584
ANDERSON, M. G. (see LINDBERG, M. S.) 273
ANSTROM, K. J. and TSIATIS, A. A. Utilizing Propensity Scores to Estimate Causal Treatment Effects with Censored Time-Lagged Data 1210
AOKI, S. (see HIROTSU, C.) 769
ASSELAIN, B. (see BROËT, P.) 844
AUER, D. P. (see GÖSSL, C.) 554

BAIRD, D. D. (see DUNSON, D. B.) 396
BAKER, C. J. (see CAREY, V. J.) 135
BAKER, S. G. (see FRANGAKIS, C. E.) 899
BAKER, S. G. Discussion of Double Sampling for Survival Analysis 348
BALASUBRAMANIAN, R. and LAGAKOS, S. W. Estimation of the Timing of Perinatal Transmission of HIV 1050
BARKER, R. J. and KAVALIERIS, L. Efficiency Gain from Auxiliary Data Requiring Additional Nuisance Parameters 563
BARNHART, H.X. and WILLIAMSON, J. M. Modeling Concordance Correlation via GEE to Evaluate Reproducibility 931
BARTOLUCCI, F. and FORCINA, A. Analysis of Capture–Recapture Data with a Rasch-Type Model Allowing for Conditional Dependence and Multidimensionality 714
BENNETT, J. and WAKEFIELD, J. Errors-in-Variables in Joint Population Pharmacokinetic/Pharmacodynamic Modeling 803
BERGER, M. P. F. (see OUWENS, M. J. N. M.) 1169
BERGER, V. W. (see IVANOVA, A.) 567
BETENSKY, R. A. and SCHOENFELD, D. A. Nonparametric Estimation in a Cure Model with Random Cure Times 282
BHOJ, D. S. Ranked Set Sampling with Unequal Samples 957
BILDER, C. R. and LOUGHIN, T. M. On the First-Order Rao–Scott Correction of the Umesh–Loughin–Scherer Statistic 1257
BISHOP, D. (see SU, X.) 420
BJORKLAND, R. (see KENDALL, W. L.) 1116
BLACKWELL, P. G. Bayesian Inference for a Random Tessellation Process 502
BLOCH, D. A., LAI, T. L., and TUBERT-BITTER, P. One-Sided Tests in Clinical Trials with Multiple Endpoints 1041
BONALDI, C. (see MOLINARI, N.) 577
BONETTI, M. (see ROBINS, J.) 343
BORGAN, Ø. (see AALEN, O. O.) 993
BORTNICK, S. M. (see STRAUSS, W. J.) 203
BOSCH, J. (see FADDY, M. J.) 620
BOWMAN, A. W. (see DIBLASI, A.) 211
BRIX, A. (see ALLARD, D.) 508
BROËT, P., DE RYCKE, Y., TUBERT-BITTER, P., LELLOUCH, J., ASSELAIN, B., and MOREAU, T. A Semiparametric Approach for the Two-Sample Comparison of Survival Times with Long-Term Survivors 844
BRUMBACK, B. B. (see COOK, R. J.) 671
BUCKLAND, S. T. (see FEWSTER, R. M.) 495
BUDTZ-JØRGENSEN, E., KEIDING, H., and GRANDJEAN, P. Benchmark Dose Calculation from Epidemiological Data 698
BURCH, B. D. and HARRIS, I. R. Closed-Form Approximations to the REML Estimator of a Variance Ratio (or Heritability) in a Mixed Linear Model 1151

CAI, J. (see SHEN, Y.) 837
CAREY, V. J., BAKER, C. J., and PLATT, R. Bayesian Inference on Protective Antibody Levels Using Case–Control Data 135
CARROLL, R. J. (see MCSHANE, L. M.) 62
CARROLL, R. J. (see SCHAFER, D.W.) 689
CARROLL, R. J. (see STRAUSS, W. J.) 203
CARROLL, R. J. Review Times in Statistical Journals: Tilting at Windmills? 1
CASELLA, G. (see WU, R.) 764
CATCHPOLE, E. A., FREEMAN, S. N., MORGAN, B. J. T., and NASH, W. J. Abalone I: Analyzing Mark–Recapture–Recovery Data Incorporating Growth and Delayed Recovery 469
CATCHPOLE, E. A., KGOSI, P. M., and MORGAN, B. J. T. On the Near-Singularity of Models for Animal Recovery Data 720
CHADŒUF, J. (see ALLARD, D.) 508
CHATTERJEE, N. and SHIH, J. A Bivariate Cure-Mixture Approach for Modeling Familial Association in Diseases 779
CHATTERJEE, N. and WACHOLDER, S. A Marginal Likelihood Approach for Estimating Penetrance from Kin-Cohort Designs 245
CHEN, H. Y. (see WANG, C. Y.) 404
CHEN, J. J. (see HSUEH, H.-M.) 478
CHEN, M.-H. (see IBRAHIM, J. G.) 383
CHEN, M.-H. and IBRAHIM, J. G. Maximum Likelihood Methods for Cure Rate Models with Missing Covariates 43
CHEN, P.-L. and SEN, P. K. Quality-Adjusted Survival Estimation with Periodic Observations 868
CHEN, P.-Y. and TSIATIS, A. A. Causal Inference on the Difference of the Restricted Mean Lifetime Between Two Groups 1031
CHEN, S.-X. and COWLING, A. Measurement Errors in Line Transect Surveys Where Detectability Varies with Distance and Size 732
CHEN, Y. Q. Accelerated Hazards Regression Model and Its Adequacy for Censored Survival Data 853
CHI, G. Y. H. (see LIU, Q.) 172
CHIANG, J. (see HOU, C.-D.) 435
CHIB, S. (see ALBERT, J. H.) 829
CHOUDHURY, A. (see THALL, P. F.) 914

CHRISTMAN, M. C. and LAN, F. Inverse Adaptive Cluster Sampling 1099
CHU, K. K., WANG, N., STANLEY, S., and COHEN, N. D. Statistical Evaluation of the Regulatory Guidelines for Use of Furosemide in Race Horses 294
CHUACHOOWONG, R. (see LYLES, R. H.) 1242
CLAYTON, M. K. (see YUE, J. C.) 743
COFFEY, C. S. and MULLER, K. E. Controlling Test Size While Gaining the Benefits of an Internal Pilot Design 625
COHEN, N. D. (see CHU, K. K.) 294
CONAWAY, M. (see PEDDADA, S. D.) 1222
COOK, R. J., BRUMBACK, B. B., WIGG, M. B., and RYAN, L. M. Synthesis of Evidence from Epidemiological Studies with Interval-Censored Exposure Due to Grouping 671
CORCORAN, C., RYAN, L., SENCHAUDHURI, P., MEHTA, C., PATEL, N., and MOLENBERGHS, G. An Exact Trend Test for Correlated Binary Data 941
COULL, B. A., RUPPERT, D., and WAND, M. P. Simple Incorporation of Interactions into Addictive Models 539
COWLING, A. (see CHEN, S.-X.) 732
CULLIS, B. (see SMITH, A.) 1141
CUMMINGS, M. P. (see SEGAL, M. R.) 632

DANIELS, M. J. and KASS, R. E. Shrinkage Estimators for Covariance Matrices 1176
DAUK, P. C. and SCHWARZ, C. J. Catch Estimation in the Presence of Declining Catch Rate Due to Gear Saturation 287
DAUK, P. C. and SCHWARZ, C. J. Catch Estimation with Restricted Randomization in the Effort Survey 461
DAURÈS, J.-P. (see MOLINARI, N.) 577
DAVIDIAN, M. (see YEAP, B. Y.) 266
DAVIDIAN, M., (see ZHANG, D.) 795
DAWID, A. P. Comment on Stockmarr's "Likelihood Ratios for Evaluating DNA Evidence When the Suspect Is Found Through a Database Search" 976
DE RYCKE, Y. (see BROËT, P.) 844
DEAN, C. B., UGARTE, M. D., and MILITINO, A. F. Detecting Interaction Between Random Region and Fixed Age Effects in Disease Mapping 197
DEAN, C. B. (see MACNAB, Y. C.) 949
DEMÉTRIO, C. G. B. (see RIDOUT, M.) 219
DENDUKURI, N. and JOSEPH, L. Bayesian Approaches to Modeling the Conditional Dependence Between Multiple Diagnostic Tests 158
DENISON, D. G. T. and HOLMES, C. C. Bayesian Partitioning for Estimating Disease Risk 143
DEROUEN, T. A. (see MANCL, L. A.) 126
DIBLASI, A. and BOWMAN, A. W. On the Use of the Variogram in Checking for Independence in Spatial Data 211
DOMINICI, F. and PARMIGIANI, G. Bayesian Semiparametric Analysis of Developmental Toxicology Data 150
DONNER, A. (see ALTAYE, M.) 584
DORGAN, J. F. (see MCSHANE, L. M.) 62
DRYDEN, I. L. (see TAYLOR, C. C.) 224
DUNSON, D. B. Bayesian Modeling of the Level and Duration of Fertility in the Menstrual Cycle 1069
DUNSON, D. B. and BAIRD, D. D. A Flexible Parametric Model for Combining Current Status and Age at First Diagnosis Data 396
DUNSON, D. B. and PERREAULT, S. D. Factor Analytic Models of Clustered Multivariate Data with Informative Censoring 302

EDDINGS, W. (see SCHARFSTEIN, D.) 404
EDWARDS, L. J., STEWART, P. W., MULLER, K. E., and HELMS, R. W. Linear Equality Constraints in the General Linear Mixed Model 1188

FADDY, M. J. and BOSCH, J. Likelihood-Based Modeling and Analysis of Data Underdispersed Relative to the Poisson Distribution 620
FAHRMEIR, L. (see GÖSSL, C.) 554
FARNOOSH, R. (see TAYLOR, C.C.) 224
FAY, M. P. and GRAUBARD, B. I. Small-Sample Adjustments for Wald-Type Test Using Sandwich Estimators 1201
FEINGOLD, E. (see YU, K.) 427
FEKJÆR, H. (see AALEN, O. O.) 993
FENTON, T. (see O'QUIGLEY, J.) 1019
FEWSTER, R. M. and BUCKLAND, S. T. Similarity Indices for Spatial Ecological Data 495
FINE, J. P and GELBER, R .D. Joint Regression Analysis of Survival and Quality-Adjusted Survival 376
FINNEY, D. J. Letter to the Editors 643
FITZMAURICE, G. M., LIPSITZ, S. R., MOLENBERGHS, G., and IBRAHIM, J. G. Bias in Estimating Association Parameters for Longitudinal Binary Responses with Drop-Outs 15
FLANDERS, S. (see IRIZARRY, R. A.) 1232
FORCINA, A. (see BARTOLUCCI, F.) 714
FRANGAKIS, C. E. and BAKER, S. G. Compliance Subsampling Designs for Comparative Research: Estimation and Optimal Planning 899
FRANGAKIS, C. E. and RUBIN, D. B. Addressing an Idiosyncrasy in Estimating Survival Curves Using Double Sampling in the Presence of Self-Selected Right Censoring 333
FRANGAKIS, C. E. and RUBIN, D. B. Rejoinder to Discussions on Addressing an Idiosyncrasy in Estimating Survival Curves Using Double Sampling in the Presence of Self-Selected Right Censoring 351
FRANK, J. (see TROENDLE, J.F.) 484
FRANK, R. (see IRIZARRY, R. A.) 1232
FREDERIKSEN, M. and PRADEL, R. Comment on Schwarz and Arnason: "Estimation of Age-Specific Breeding Probabilities from Capture–Recapture Data" 975
FREEDMAN, L. S. (see MCSHANE, L. M.) 62
FREEMAN, S. N. (see CATCHPOLE, E. A.) 469
FUCHS, C. UMPU and Alternative Tests for Association in 2×2 Tables 535

GELBER, R. D. (see FINE, J. P.) 376
GIANOLA, D. (see REKAYA, R.) 1126
GILBERT, P .B. (see MCKEAGUE, I. W.) 818
GODØ, O. R. (see HJELLVIK, H.) 189
GORFINE, M. Estimation of a Secondary Parameter in a Group Sequential Clinical Trial 589
GÖSSL, C., AUER, D. P., and FAHRMEIR, L. Bayesian Spatiotemporal Inference in Functional Magnetic Resonance Imaging 554
GRANDJEAN, P. (see BUDTZ-JØRGENSEN, E.) 698
GRAUBARD, B. I. (see FAY, M. P.) 1201
GRAY, A. J. (see INGLIS, I. M.) 232
GREENE, T. A Model for a Proportional Treatment Effect on Disease Progression 354
GREENLAND, S. Estimation of Population Attributable Fractions from Fitted Incidence Ratios and Exposure Survey Data, with an Application to Electromagnetic Fields and Childhood Leukemia 182
GREENLAND, S. Putting Background Information About Relative Risks into Conjugate Prior Distributions 663
GRIMSHAW, S. D., WHITING, D. G., and MORRIS, T. H. Likelihood Ratio Tests for a Mixture of Two von Mises Distributions 260
GUSTAFSON, P., LE, N. D., and SASKIN, R. Case–Control Analysis with Partial Knowledge of Exposure Misclassification Probabilities 598

HARPER, C.N. (see ROSENBERGER, W.F.) 909
HARRINGTON, D. P. (see XU, R.) 875
HARRIS, I. R. (see BURCH, B. D.) 1151
HE, C. Z., SUN, D., and TRA, Y. Bayesian Modeling of Age-Specific Survival in Nesting Studies Under Dirichlet Priors 1061
HEINZE, G. and SCHEMPER, M. A Solution to the Problem of Monotone Likelihood in Cox Regression 114

HELLER, G. and QIN, J. Pairwise Rank-Based Likelihood for Estimation and Inference on the Mixture Proportion 813
HELLMICH, M. Monitoring Clinical Trials with Multiple Arms 892
HELMS, R. W. (see EDWARDS, L. J.) 1188
HIBY, L. and KRISHNA, M. B. Line Transect Sampling from a Curving Path 727
HINDE, J. (see RIDOUT, M.) 219
HINES, J. E. (see LINDBERG, M. S.) 273
HIROTSU, C., AOKI, S., INADA, T., and KITAO, Y. An Exact Test for the Association Between the Disease and Alleles at Highly Polymorphic Loci with Particular Interest in the Haplotype Analysis 769
HJELLVIK, H., GODØ, O. R., and TJØSTHEIM, D. Modeling Diurnal Variation of Marine Populations 189
HOLDEN, J. K. (see LEE, A. J.) 707
HOLMES, C. C. (see HOLMES, C. C.) 143
HOPKE, P. K., LIU, C., and RUBIN, D. B. Multiple Imputation for Multivariate Data with Missing and Below-Threshold Measurements: Time-Series Concentrations of Pollutants in the Arctic 22
HORTON, N. J. and LAIRD, N. M. Maximum Likelihood Analysis of Logistic Regression Models with Incomplete Covariate Data and Auxiliary Information 34
HOU, C.-D., CHIANG, J., and TAI, J. Identifying Chromosomal Fragile Sites from a Hierarchical-Clustering Point of View 435
HSIEH, Y.-C. (see WU, T.-J.) 441
HSUEH, H.-M., LIU, J.-P., and CHEN, J.J. Unconditional Exact Tests for Equivalence or Noninferiority for Paired Binary Endpoints 478
HUAKAU, J. T. (see LEE, A. J.) 707
HUBBARD, A. E. (see SEGAL, M. R.) 632
HUDGENS, M. G., SATTEN, G. A., and LONGINI, I. M., JR. Nonparametric Maximum Likelihood Estimation for Competing Risks Survival Data Subject to Interval Censoring and Truncation 74
HUGHES, M. D. (see O'QUIGLEY, J.) 1019
HUGHES-OLIVER, J. M. (see ZHU, L.) 922
HUTCHINSON, T. P. Partial Knowledge and Answer-Until-Correct Tasks in Birds and Humans 1255

IBRAHIM, J. G. (see CHEN, M.-H.) 43
IBRAHIM, J. G. (see FITZMAURICE, G. M.) 15
IBRAHIM, J. G., CHEN, M.-H., and SINHA, D. Bayesian Semiparametric Models for Survival Data with a Cure Fraction 383
INADA, T. (see HIROTSU, C.) 769
INGLIS, I. M. and GRAY, A. J. An Evaluation of Semiautomatic Approaches to Contour Segmentation Applied to Fungal Hyphae 232
IRIZARRY, R. A., TANKERSLEY, C., FRANK, R., and FLANDERS, S. Assessing Homeostasis Through Circadian Patterns 1232
IVANOVA, A. (see ROSENBERGER, W. F.) 909
IVANOVA, A. and BERGER V. W. Drawbacks to Integer Scoring for Ordered Categorical Data 567

JONES, G. and ROCKE, D. M. Analyte Identification in Multivariate Calibration 571
JOSEPH, L. (see DENDUKURI, N.) 158

KANKI, P. J. (see MCKEAGUE, I. W.) 818
KASS, R. E. (see DANIELS, M. J.) 1176
KAVALIERIS, L. (see BARKER, R.J.) 563
KEIDING, H. (see BUDTZ-JØRGENSEN, E.) 698
KENDALL, W. L. (see LINDBERG, M. S.) 273
KENDALL, W. L. and BJORKLAND, R. Using Open Robust Design Models to Estimate Temporary Emigration from Capture–Recapture Data 1116
KENWARD, M. G. (see VERBEKE, G.) 7
KGOSI, P. M. (see CATCHPOLE, E. A.) 720
KITAO, Y. (see HIROTSU, C.) 769
KLAR, N. (see ALTAYE, M.) 584
KRISHNA, M. B. (see HIBY, L.) 727
KUPPER, L. L. (see TAYLOR, D. J.) 681

LAGAKOS, S. W. (see BALASUBRAMANIAN, R.) 1050
LAI, T. L. (see BLOCH, D. A.) 1041
LAIRD, N. M. (see HORTON, N. J.) 34
LAN, F. (see CHRISTMAN, M. C.) 1099
LE, N. D. (see GUSTAFSON, P.) 598
LEE, A. J., SEBER, G. A. F., HOLDEN, J. K., and HUAKAU, J. T. Capture–Recapture, Epidemiology and List Mismatches: Several Lists 707
LEE, S.-Y., and SHI, J.-Q. Maximum Likelihood Estimation of Two-Level Latent Variable Models with Mixed Continuous and Polytomous Data 787
LELLOUCH, J. (see BROËT, P.) 844
LESAFFRE, E. (see VERBEKE, G.) 7
LEUNG, D. H.-Y. and WANG, Y.-G. A Bayesian Decision Approach for Sample Size Determination in Phase II Trials 168
LI, B. (see WU, R.) 764
LI, J. (see ZHAO, H.) 1076
LI, L.-A. (see WU, T.-J.) 441
LIN, D. Y. and YING, Z. Nonparametric Tests for the Gap Time Distributions of Serial Events Based on Censored Data 369
LIN, F.-C. (see YUE, J. C.) 743
LIN, I. F. and PAIK, M. C. Matched Case–Control Data Analysis with Selection Bias 1109
LINDBERG, M. S., KENDALL, W. L., HINES, J. E., and ANDERSON, M. G. Combining Band Recovery Data and Pollock's Robust Design to Model Temporary and Permanent Emigration 273
LIPSITZ, S. R. (see FITZMAURICE, G. M.) 15
LIU, C. (see HOPKE, P. K.) 22
LIU, J.-P. (see HSUEH, H.-M.) 478
LIU, Q. and CHI, G. Y. H. On Sample Size and Inference for Two-Stage Adaptive Designs 172
LONGINI, I. M., JR. (see HUDGENS, M. G.) 74
LOUGHIN, T. M. (see BILDER, C. R.) 1257
LU, K. and TSIATIS, A. A. Multiple Imputation Methods for Estimating Regression Coefficients in the Competing Risks Model with Missing Cause of Failure 1194
LUBIN, J. H. (see SCHAFER, D. W.) 689
LYLES, R. H., WILLIAMS, J. K., and CHUACHOOWONG, R. Correlating Two Viral Load Assays with Known Detection Limits 1242
LYLES, R. H. (see TAYLOR, D. J.) 681

MACNAB, Y. C. and DEAN, C. B. Autoregressive Spatial Smoothing and Temporal Spline Smoothing for Mapping Rates 949
MANCL, L. A. and DEROUEN, T. A. A Covariance Estimator for GEE with Improved Small-Sample Properties 126
MAYER-HAMBLETT, N., and SELF, S. A Regression Modeling Approach for Describing Patterns of HIV Genetic Variation 449
MCKEAGUE, I. W., GILBERT, P. B., and KANKI, P. J. Omnibus Tests for Comparision of Competing Risks with Adjustment for Covariate Effects 818
MCKEAN, J. W. (see NARANJO, J. D.) 178
MCSHANE, L. M., MIDTHUNE, D. N., DORGAN, J. F., FREEDMAN, L. S., and CARROLL, R. J. Covariate Measurement Error Adjustment for Matched Case–Control Studies 62
MCSHANE, L. M. (see ALBERT, P. S.) 610
MEHTA, C. (see CORCORAN, C.) 941
MELVILLE, G. J. and WELSH, A. H. Line Transect Sampling in Small Regions 1133
MENGERSEN, K. (see PERRON, F.) 518
MENKEDICK, J. R. (see STRAUSS, W. J.) 203
MIDTHUNE, D. N. (see MCSHANE, L. M.) 62
MILITINO, A. F. (see DEAN, C. B.) 197
MIN, Y. (see AGRESTI, A.) 963

MOLENBERGHS, G. (see CORCORAN, C.) 941
MOLENBERGHS, G. (see FITZMAURICE, G. M.) 15
MOLENBERGHS, G. (see VERBEKE, G.) 7
MOLINARI, N., BONALDI, C., and DAURÈS, J.-P. Multiple Temporal Cluster Detection 577
MOORE, D.F., PARK, C. K., and SMITH, W. Exploring Extra-Binomial Variation in Teratology Data Using Continuous Mixtures 490
MOREAU, T. (see BROËT, P.) 844
MORGAN, B. J. T. (see CATCHPOLE, E. A.) 469
MORGAN, B. J. T. (see CATCHPOLE, E. A.) 720
MORRIS, T. H (see GRIMSHAW, S. D.) 260
MÜLLER, H.-H. and SCHÄFER, H. Adaptive Group Sequential Designs for Clinical Trials: Combining the Advantages of Adaptive and of Classical Group Sequential Approaches 886
MULLER, K. E. (see EDWARDS, L. J.) 1188
MULLER, K. E. (see COFFEY, C. S.) 625
MURRAY, S. Using Weighted Kaplan–Meier Statistics in Nonparametric Comparisons of Paired Censored Survival Outcomes 361

NARANJO, J. D. and MCKEAN, J. W. Adjusting for Regression Effect in Uncontrolled Studies 178
NASH, W. J. (see CATCHPOLE, E. A.) 469

O'GORMAN, J. T. and AKRITAS, M. G. Nonparametric Models and Methods for Designs with Dependent Censored Data: Part I 88
O'QUIGLEY, J., HUGHES, M. D., and FENTON, T. Dose-Finding Designs for HIV Studies 1019
OUWENS, M. J. N. M., TAN, F. E. S., and BERGER, M. P. F. Local Influence to Detect Influential Data Structures for Generalized Linear Mixed Models 1169

PAIK, M. C. (see LIN, I. F.) 1109
PAN, W. A Multiple Imputation Approach to Regression Analysis for Doubly Censored Data with Application to AIDS Studies 1249
PAN, W. Akaike's Information Criterion in Generalized Estimating Equations 120
PAN, W. Model Selection in Estimating Equations 529
PARK, C. K. (see MOORE, D. F.) 490
PARMIGIANI, G. (see DOMINICI, F.) 150
PATEL, N. (see CORCORAN, C.) 941
PEDDADA, S. D., PRESCOTT, K. E., and CONAWAY, M. Tests for Order Restrictions in Binary Data 1222
PERREAULT, S. D. (see DUNSON, D. B.) 302
PERRON, F. and MENGERSEN, K. Bayesian Nonparametric Modeling Using Mixtures of Triangular Distributions 518
PINSKY, P. F. Estimation and Prediction for Cancer Screening Models Using Deconvolution and Smoothing 389
PLATT, R. (see CAREY, V. J.) 135
PRADEL, R. (see FREDERIKSEN, M.) 975
PRESCOTT, K. E. (see PEDDADA, S. D.) 1222

QIN, J. (see HELLER, G.) 813

RABE-HESKETH, S. and SKRONDAL, A. Parameterization of Multivariate Random Effects Models for Categorical Data 1260
RAPPAPORT, S. M. (see TAYLOR, D. J.) 681
REKAYA, R., WEIGEL, K. A., and GIANOLA, D. Threshold Model for Misclassified Binary Responses with Applications to Animal Breeding 1126
RICE, J. A. and WU, C. O. Nonparametric Mixed Effects Models for Unequally Sampled Noisy Curves 253
RICKS, M. L. (see ROSENBERGER, W.F.) 909
RIDOUT, M., HINDE, J., and DEMÉTRIO, C. G. B. A Score Test for Testing a Zero-Inflated Poisson Regression Model Against Zero-Inflated Negative Binomial Alternatives 219
ROBINS, J. (see ROTNITZKY, A.) 103
ROBINS, J., ROTNITZKY, A., and BONETTI, M. Discussion of the Frangakis and Rubin Article 343
ROBINS, J. M. (see SCHARFSTEIN, D.) 404
ROBINSON, W. P. (see ZHAO, H.) 1076
ROCKE, D. M. (see JONES, G.) 571
RON, E. (see SCHAFER, D. W.) 689
ROSENBERGER, W. F., STALLARD, N., IVANOVA, A., HARPER, C. N., and RICKS, M. L., Optimal Adaptive Designs for Binary Response Trials 909
ROTNITZKY, A. (see ROBINS, J.) 343
ROTNITZKY, A. (see SCHARFSTEIN, D.) 404
ROTNITZKY, A., SCHARFSTEIN, D., SU, T.-L., and ROBINS, J. Methods for Conducting Sensitivity Analysis of Trials with Potentially Nonignorable Competing Causes of Censoring 103
RUBIN, D. B. (see FRANGAKIS, C. E.) 333
RUBIN, D. B. (see FRANGAKIS, C. E.) 351
RUBIN, D. B. (see HOPKE, P. K.) 22
RUPPERT, D (see COULL, B. A.) 539
RYAN, L. (see CORCORAN, C.) 941
RYAN, L. M. (see COOK, R. J.) 671

SASKIN, R. (see GUSTAFSON, P.) 598
SATTEN, G. A. (see HUDGENS, M. G.) 74
SCHAFER, D. W. Semiparametric Maximum Likelihood for Measurement Error Model Regression 53
SCHAFER, D. W., LUBIN, J. H., RON, E., STOVALL, M., and CARROLL, R. J. Thyroid Cancer Following Scalp Irradiation: A Reanalysis Accounting for Uncertainty in Dosimetry 689
SCHÄFER, H. (see MÜLLER, H.-H.) 886
SCHARFSTEIN, D. (see ROTNITZKY, A.) 103
SCHARFSTEIN, D., ROBINS, J. M., EDDINGS, W., AND ROTNITZKY, A. Inference in Randomized Studies with Informative Censoring and Discrete Time-to-Event Endpoints 404
SCHEMPER, M. (see HEINZE, G.) 114
SCHOENFELD, D. A. (see BETENSKY, R. A.) 282
SCHOENFELD, D. A. A Simple Algorithm for Designing Group Sequential Clinical Trials 972
SCHULTZ, B. D. (see STRAUSS, W. J.) 203
SCHWARZ, C. J. (see DAUK, P. C.) 287
SCHWARZ, C. J. (see DAUK, P. C.) 461
SEBER, G. A. F. (see LEE, A. J.) 707
SEGAL, M. R., CUMMINGS, M. P., and HUBBARD, A. E. Relating Amino Acid Sequence to Phenotype: Analysis of Peptide-Binding Data 632
SELF, S. (see MAYER-HAMBLETT, N.) 449
SEN, P. K. (see CHEN, P.-L.) 868
SENCHAUDHURI, P. (see CORCORAN, C.) 941
SHEN, Y. and CAI, J. Maximum of the Weighted Kaplan–Meier Tests with Application to Cancer Prevention and Screening Trials 837
SHEN, Y., WU, D., and ZELEN, M. Testing the Independence of Two Diagnostic Tests 1010
SHI, J.-Q. (see LEE, S.-Y.) 787
SHIH, J. (see CHATTERJEE, N.) 779
SHIH, J. H. (see ALBERT, P. S.) 610
SILVAPULLE, M. J. Tests Against Qualitative Interaction: Exact Critical Values and Robust Tests 1160
SINHA, D. (see IBRAHIM, J. G.) 383
SKAUG, H. J. Allele-Sharing Methods for Estimation of Population Size 750
SKRONDAL, A. (see RABE-HESKETH, S.) 1260
SMITH, A., CULLIS, B., and THOMPSON, R. Analyzing Variety by Environment Data Using Multiplicative Mixed Models and Adjustments for Spatial Field Trend 1141
SMITH, W. (see MOORE, D. F.) 490
STALLARD N. and THALL, P. F. Decision-Theoretic Designs for Pre-Phase II Screening Trials in Oncology 1092

STALLARD, N. (see ROSENBERGER, W. F.) 909
STANLEY, S. (see CHU, K. K.) 294
STEWART, P. W. (see EDWARDS, L. J.) 1188
STOVALL, M. (see SCHAFER, D. W.) 689
STRAUSS, W. J., CARROLL, R. J., BORTNICK, S. M., MENKEDICK, J. R., and SCHULTZ, B. D. Combining Datasets to Predict the Effects of Regulation of Environmental Lead Exposure in Housing Stock 203
SU, T.-L. (see ROTNITZKY, A.) 103
SU, X., WALLENSTEIN, S., and BISHOP, D. Nonoverlapping Clusters: Approximate Distribution and Application to Molecular Biology 420
SUN, D. (see HE, C. Z.) 1061
SUNG, H.-G. (see THALL, P. F.) 914

TAI, J. (see HOU, C.-D.) 435
TAN, F. E. S. (see OUWENS, M. J. N. M.) 1169
TANKERSLEY, C. (see IRIZARRY, R. A.) 1232
TAYLOR, C. C., DRYDEN, I. L., and FARNOOSH, R. The K-Function for Nearly Regular Point Processes 224
TAYLOR, D. J., KUPPER, L. L., RAPPAPORT, S. M., and LYLES, R. H. A Mixture Model for Occupational Exposure Mean Testing with a Limit of Detection 681
THALL, P. F. (see STALLARD N.) 1092
THALL, P. F., SUNG, H.-G., and CHOUDHURY, A. Dose-Finding Based on Feasibility and Toxicity in T-Cell Infusion Trials 914
THIJS, H. (see VERBEKE, G.) 7
THOMPSON, R. (see SMITH, A.) 1141
TIAN, L. (see ZHAO, H.) 1002
TJØSTHEIM, D. (see HJELLVIK, H.) 189
TRA, Y. (see HE, C. Z.) 1061
TROENDLE, J. F. and FRANK, J. Unbiased Confidence Intervals for the Odds Ratio of Two Independent Binomial Samples with Application to Case–Control Data 484
TSIATIS, A. A. (see ANSTROM, K. J.) 1210
TSIATIS, A. A. (see CHEN, P.-Y.) 1031
TSIATIS, A. A. (see LU, K.) 1194
TSIATIS, A. A. (see ZHAO, H.) 861
TUBERT-BITTER, P. (see BLOCH, D. A.) 1041
TUBERT-BITTER, P. (see BROËT, P.) 844

UGARTE, M. D. (see DEAN, C. B.) 197

VERBEKE, G., MOLENBERGHS, G., THIJS, H., LESAFFRE, E., and KENWARD, M. G. Sensitivity Analysis for Nonrandom Dropout: A Local Influence Approach 7

WACHOLDER, S. (see CHATTERJEE, N.) 245
WAKEFIELD, J. (see BENNETT, J.) 803
WALLENSTEIN, S. (see SU, X.) 420
WALTER, S. D. Letter to the Editors 980
WAND, M. P. (see COULL, B. A.) 539
WANG, C. Y. and CHEN, H. Y. Augmented Inverse Probability Weighted Estimator for Cox Missing Covariate Regression 404
WANG, N. (see CHU, K. K.) 294
WANG, Y.-G. (see LEUNG, D. H.-Y.) 168
WEIGEL, K. A. (see REKAYA, R.) 1126
WELSH, A. H. (see MELVILLE, G. J.) 1133
WHITING, D. G. (see GRIMSHAW, S. D.) 260
WIGG, M. B. (see COOK, R. J.) 671
WILLIAMS, J. K. (see LYLES, R. H.) 1242
WILLIAMSON, J. M. (see BARNHART, H. X.) 931
WOOD, S. N. Minimizing Model Fitting Objectives That Contain Spurious Local Minima by Bootstrap Restarting 240
WU, C. O. (see RICE, J. A.) 253
WU, D. (see SHEN, Y.) 1010
WU, R., LI, B., WU, S. S., and CASELLA, G. A Maximum Likelihood-Based Method for Mining Major Genes Affecting a Quantitative Character 764
WU, S. S. (see WU, R.) 764
WU, T.-J., HSIEH, Y.-C., and LI, L.-A. Statistical Measures of DNA Sequence Dissimilarity under Markov Chain Models of Base Composition 441

XU, J. and ZEGER, S. L. The Evaluation of Multiple Surrogate Endpoints 81
XU, R. and HARRINGTON, D. P. A Semiparametric Estimate of Treatment Effects with Censored Data 875

YAU, K. K. W. Multilevel Models for Survival Analysis with Random Effects 96
YEAP, B. Y. and DAVIDIAN, M. Robust Two-Stage Estimation in Hierarchical Nonlinear Models 266
YING, Z. (see LIN, D. Y.) 369
YOUNG, S. S. (see ZHU, L.) 922
YU, K. and FEINGOLD, E. Estimating the Frequency Distribution of Crossovers during Meiosis from Recombination Data 427
YUE, J. C., CLAYTON, M. K., and LIN, F.-C. A Nonparametric Estimator of Species Overlap 743

ZEGER, S. L. (see XU, J.) 81
ZELEN, M. (see SHEN, Y.) 1010
ZHANG, D. and DAVIDIAN, M. Linear Mixed Models with Flexible Distributions of Random Effects for Longitudinal Data 795
ZHAO, H. and TIAN, L. On Estimating Medical Cost and Incremental Cost-Effectiveness Ratios with Censored Data 1002
ZHAO, H. and TSIATIS, A. A. Testing Equality of Survival Functions of Quality-Adjusted Lifetime 861
ZHAO, H., LI, J., and ROBINSON, W. P. Statistical Analysis of Uniparental Disomy Data Using Hidden Markov Models 1076
ZHU, L., HUGHES-OLIVER, J. M., and YOUNG, S. S. Statistical Decoding of Potent Pools Based on Chemical Structure 922

INDEX OF BOOKS REVIEWED, VOLUME 57

ANDERSSON, H. and BRITTON, T. Stochastic Epidemic Models and Their Statistical Analysis (G. Reinert) 987

BARNDORFF-NIELSEN, O. E., COX, D. R., and KLUPPELBERG, C. Complex Stochastic Systems (N. Sheehan) 651
BARNDORFF-NIELSEN, O. E., MIKOSCH, T, and RESNICK, S. I. Lévy Processes: Theory and Applications (Editor) 1282
BERLINER, L. M., NYCHKA, D., and HOAR, T. (eds) Studies in the Atmospheric Sciences (C. Glasbey) 317
BERNARDO, J. M., BERGER, J. O., DAWID, A. P., and SMITH, A. F. M. (eds) Bayesian Statistics 6 (D. Stangl) 644
BINNS, M. R., NYROP, J. P., and VAN DER WERF, W. (eds) Sampling and Monitoring in Crop Protection: The Theoretical Basis for Developing Practical Decision Guides (J. Lynn) 647
BLAND, M. An Introduction to Medical Statistics, 3rd edition (Editor) 329
BLAND, M. and PEACOCK, J. Statistical Questions in Evidence Based Medicine (M. S. Ridout) 649
BONATE, P. L. Analysis of Pretest-Posttest Designs (A. P. Grieve) 985
BURNHAM, K. P. and ANDERSON, D. R. Model Selection and Inference: A Practical Information-Theoretic Approach (B. J. T. Morgan) 320
BURTON, R. F. Physiology by Numbers, 2nd edition (J. Keener) 316

CARLIN, B. P. and LOUIS, T. A. Bayes and Empirical Bayes Methods for Data Analysis, 2nd edition (Editor) 991
CHATFIELD, C. Time-Series Forecasting (M. Steel) 654
CHEN, M.-H., SHAO, Q.-M., and IBRAHIM, J. G. Monte Carlo Methods in Bayesian Computation (S. K. Sahu) 326
CLARK, I. and HARPER, W. V. Practical Geostatistics 2000 (N. Cox) 655
COX, D. R. and REID, N. The Theory of the Design of Experiments (D. A. Preece) 321

DAVID, H. A. and EDWARDS, A. W. F. Annotated Readings in the History of Statistics (E. Seneta) 1280
DENNY, M. and GAINES, S. Chance in Biology: Using Probability to Explore Nature (M. S. Ridout) 986
DIECKMANN, U., LAW, R., and METZ, J. A. J. (eds) The Geometry of Ecological Interactions: Simplifying Spatial Complexity (G. J. Gibson) 648
DONNER, A. and KLAR, N. Design and Analysis of Cluster Randomization Trials in Health Research (S. Chinn) 318
DUFFY S. W., HILL, C., and ESTEVE, J. (eds) Quantitative Methods for the Evaluation of Cancer Screening (R. Blanks) 1274

EDWARDS, D. Introduction to Graphical Modelling, 2nd edition (C. M. Quenn) 986
ELLIOT, P. WAKEFIELD, J. C., BEST, N. G., and BRIGGS, D. J. Spatial Epidemiology: Methods and Applications (O.Berke) 1281
EVERITT, B. S. and DUNN, G. Statistical Analysis of Medical Data: New Developments (P. J. Solomon) 327

FAHRMEIR, L. and TUTZ, G. Multivariate Statistical Modelling Based on Generalized Linear Models, 2nd edition (G. Molenberghs) 1278
FERNHOLZ, L. T., MORGENTHALER, S., and STAHEL, W. Statistics in Genetics and in the Environmental Sciences (M. S. Ridout) 1274
FORD, E. D. Scientific Method for Ecological Research (M. S. Ridout) 320

GAIL, M. H. and BENICHOU, J. (eds) Encyclopedia of Epidemiologic Methods (K. McPherson) 982
GASTWIRTH, J. L. Statistical Science in the Courtroom (M. S. Ridout) 1271
GOLYANDINA, N., NEKRUTKIN, V., and ZHIGLJAVSKY, A. Analysis of Time Series Structure: SSA and Related Techniques (C. Chatfield) 1276
GORE, A. and PARANJPE, S. A Course in Mathematical and Statistical Ecology (P. Blackwell) 1270

HALLORAN, M. E. and BERRY, D. (eds) Statistical Models in Epidemiology, the Environment, and Clinical Trials (V. Didelez and L. Knorr-Held) 983
KARIAN, Z. A. and DUDEWICZ, E. J. Fitting Statistical Distributions: The Generalized Lambda Distribution and Generalized Bootstrap Methods (M. S. Ridout) 657
KNIGHT, K. Mathematical Statistics (M. S. Ridout) 328
KOO, J. O. (ed) American Series in Mathematical and Management Sciences Volume 42. Modern Mathematical, Management, and Statistical Sciences, The Index to the 20th Century, Prologue to the 21st Century (Editor) 330
KRAUSE, A. and OLSON, M. The Basics of S and S-PLUS (M. S. Ridout) 325

LAWSON, A., BIGGERI, A., BÖHNING, D., LESAFFRE, E., VIEL, J.-F., and BERTOLLINI, R. Disease Mapping and Risk Assessment for Public Health (O. Berke) 648
LE CAM, L. and YANG, G. L. Asymptotics in Statistics: Some Basic Concepts, 2nd edition (Editor) 991
LINDSEY, J. K. Models for Repeated Measurements, 2nd edition (J. S. Fenlon) 319

MACARTHUR, R. H. and WILSON, E. O. The Theory of Island Biogeography (Editor) 1282
MANLY, B. F. J. Statistics for Environmental Science and Management (D. Elston) 650
MARI, D. D. and KOTZ, S. Correlation and Dependence (R. B, Nelsen) 1277
MATIS, J. H. and KIFFE, T. R. Stochastic Population Models: A Compartmental Perspective (M. J. Faddy) 318
MATTHEWS, J. N. S. An Introduction to Randomized Controlled Clinical Trials (M. S. Ridout) 655
MCCONWAY, K. J., JONES, M. C., and TAYLOR, P. C. Statistical Modelling using Genstat (A. Mead) 314
MILLER, R. E. Optimization: Foundations and Applications (Editor) 329
MISHRA, S. N. and SARMA, B. D. (eds) American Series in Mathematical and Management Sciences Volume 43. FIM-I, Forum for Interdisciplinary Mathematics Proceedings on Statistical Inference, Combinatorics and Related Areas, Volume I of Proceedings of Banaras Hindu University (BHU) Conference (Varanasi, India, December 1997) (Editor) 330
MORGAN, B. J. T. Applied Stochastic Modelling (J. K. Lindsey) 988
MUELLER, L. D. and JOSHI, A. Stability in Model Populations (G. Nachman) 1273
MUKHOPADHYAY, N. Probability and Statistical Inference (M. S. Ridout) 328
MUKHOPADHYAY, R. Topics in Survey Sampling (Y. G. Berger) 1272

NOLAN, D. and SPEED, T. StatLabs: Mathematical Statistics Through Applications (J. P. Hinde) 646

OWEN, A. B. Empirical Likelihood (Y. Pawitan) 1269

PAWITAN, Y. In All Likelihood: Statistical Modelling and Inference Using Likelihood (J. A. Nelder) 1271
PERRY, J. E., SMITH, R. H., WOIWOD, I. P., and MORSE, D. R. (eds) Chaos in Real Data: The Analysis of Non-linear Dynamics from Short Ecological Time Series (B. Finkenstadt) 315
PETRIE, A. and SABIN, C. Medical Statistics at a Glance (M. S. Ridout) 652
PINHEIRO, J. C. and BATES, D. M. Mixed-effects Models in S and S-PLUS (B. R. Cullis) 322
PISTONE, G., RICCOMAGNO, E., and WYNN, H. P. Algebraic Statistics: Computational Commutative Algebra in Statistics (Editor) 990
PRAKASA RAO, B. L. S. Statistical Inference for Diffusion Type Processes (A. Yu. Veretennikov) 317

RABE-HESKETH, S. and EVERITT, B. A Handbook of Statistical Analyses using Stata, 2nd edition (Editor) 330
RASHIDI, H. H. and BUEHLER, L. K. Bioinformatics Basics: Applications in Biological Science and Medicine (M. J. Bishop) 1273
RAYNER, J. C. W. and BEST, D. J. A Contingency Table Approach to Nonparametric Testing (C. B. Borkowf) 1275
REES, D. G. Essential Statistics, 4th Edition (Editor) 991
RÍOS ENSUA, D. and RUGGERI, F. (eds) Robust Bayesian Analysis (T. Sapatinas) 650
ROGERS, L. Sexing the Brain (Editor) 1282
RYCHLIK, T. Projecting Statistical Functionals (Editor) 991

SAHAI, H. and AGEEL, M. L. The Analysis of Variance: Fixed, Random, and Mixed Models (J. C. Pinheiro) 326
SALSBURG, D. The Lady Tasting Tea: How Statistics Revolutionized Science in the Twentieth Century (N. J. Cox) 1277
SCHINAZI, R. B. Classical and Spatial Point Processes (E. Renshaw) 314
SEVERINI, T. A. Likelihood Methods in Statistics (T. Sapatinas) 988
SHESKIN, D. J. Handbook of Parametric and Nonparametric Statistical Procedures, 2nd edition (Editor) 992
SHIPLEY, B. Cause and Correlation in Biology: A User's Guide to Path Analysis, Structural Equations and Causal Inference (D. A. Kenny) 989
SPRENT, P. and SMEETON, N. C. Applied Nonparametric Statistical Methods, 3rd edition (Editor) 658

TAN, W.-Y. Stochastic Modeling of AIDS Epidemiology and HIV Pathogenesis (J. Gani) 653
TANIGUCHI, M. and KAKIZAWA, Y. Asymptotic Theory of Statistical Inference for Time Series (Q. Yao) 656
TARTER, M. E. Statistical Curves and Parameters: Choosing an Appropriate Approach (M. S. Ridout) 989
THERNEAU, T. M. and GRAMBSCH, P. M. Modeling Survival Data: Extending the Cox Model (V. Farewell) 652

VAN DER VAART, A. W. Asymptotic Statistics (D. S. Coad) 645
VENABLES, W. N. and RIPLEY, B. D. Modern Applied Statistics with S-PLUS, 3rd edition (Editor) 330
VENABLES, W. N. and RIPLEY, B. D. S Programming (R. D. Ball) 324

WEBB, A. Statistical Pattern Recognition (R. Hanka) 984
WEIBEL, E. R. Symmorphosis: On Form and Function in Shaping Life (Editor) 990
WILCOX, R. R. Fundamentals of Modern Statistical Methods: Substantially Improving Power and Accuracy (D. P. Wiens) 1279

SUBJECT INDEX, VOLUME 57

Aalen–Johansen estimator 993
Abalone 469
Abundance estimation 1133
Accelerated hazards 853
Accelerated life model 376
Access survey 287, 461
Acute respiratory distress syndrome 972
Adaptive design 172, 886
Adaptive interim analysis 892
Adaptive sampling 1099
Additive effects 178
Additive regression model 993
Adjusted confidence intervals 172
Adjusted p-value 172
Adoptive immunotherapy 914
Age-specific survival 1061
Agreement 931
AIDS 1249
Akaike information criterion 120, 529
Algae 224
Allele frequencies 769
Allele frequency 764
Altitude of the sun 189
Amalgamation noninvariance 769
A-MET test 535
Animal territories 502
Answer-until-correct 1255
Asymptotic relative efficiency 1151
Asymptotic test 478
Attributable fraction 182
Attributable risk 182
Attrition 103
Augmented inverse probability of censoring weighted estimation 103
Average regression effect 875

Band recovery 273, 563
Bandwidth 211
Bayes factor 829
Bayesian 168, 309
Bayesian analysis 158, 302, 598, 663, 1069
Bayesian computation 143
Bayesian design 1092
Bayesian estimation 1061
Bayesian estimation and inference 135
Bayesian information criterion 529
Bayesian methods 22
Bayesian semiparametric 150
Berkson measurement error 689
Best attainable match 495
Beta-binomial 490
Beta-binomial distribution 150
Bias 1242
Bias reduction 114
Binary data 158, 941, 1126
Binning 211
Binomial distribution 963, 1222
Bioconvection pattern 224
Biomarkers 610
Birth–death process 546
Blocking 922
Bootstrap 182, 294, 529, 743, 757
Bootstrap confidence intervals 178
Bootstrap methodology 1222
Bootstrap procedure 427
Bootstrap tests 1041
Bottom trawl catches 189
Breast cancer 1010
Breeding probability 273, 1116
Bump hunting 632

Calibrated bootstrap 427
Calibration 1133
Cancer screening 389
Canvasbacks 273
Capture–recapture 273, 563, 707
Case–control analysis 598
Case–control study 62
Catch per unit effort 461
Catch rate 287
Causal inference 899, 1031
Cause-specific hazard 1194
Cause-specific hazard rates 818
Censored data 844
Censoring 681, 1061, 1210, 1242
Chi-square test 535, 1257
Chronic granulomatous disease 96
Circadian patterns 1232
Circular data 260
Classification trees 632
Clinical breast exams 1010
Clinical trial 361, 886
Clinical trial design 914
Clinical trials 909, 972
Clock versus light 189
Clopper–Pearson interval 963
Closed testing 892
Clustered data 941
Clustering 420
Coarse data 396
Coarsened data 22
Coarsening at random 404
Cochran–Armitage trend test 1222
Cod 189
Cognitive development 1188
Combination rule 886
Combining data 203
Competing mortality 389
Competing risks 74, 282, 404, 993
Complemented surveys 287, 461
Compliance subsampling 899
Compound symmetry 7
Conception probability 1069
Conditional 484
Conditional error 172
Conditional independence assumption 34
Conditional logistic regression 62, 1201
Conditional scores 62
Conditional tests 1083
Confidence interval 478, 484, 584
Confidence limits 698
Confounding 1210
Conservatism 567
Contingency table 567
Continual reassessment method 914, 1019
Continuous-time Markov process 287
Convolution model 389
Copula models 779
Correlated binary data 126
Correlated binary endpoints 478
Correlated data 245, 931
Correlated errors 1232
Correlated failure times 369, 779
Correlated outcomes 1188
Correlated survival data 88
Correlated times-to-event 361
Correlation 158
Count data 219
Counting process 993, 1002
Counting processes 861
Covariance function 211
Cox process 502
Cox proportional hazards model 818, 1031, 1201
Crossed design 449
Crossover 427
Crossover interaction 1160
Crossover interference 1076
Crossover process 1076
Cross-reactivity 571
Cross-validation 529
Cumulative incidence function 74, 818
Cumulative ordinal probit and logit model 829
Cure model 844
Cure models 779
Cure rate 282
Cure rate model 43, 383
Curse of dimensionality 103, 404
Curved transects 727

Data augmentation 663, 1126, 1249
Data-augmentation algorithm 22
Decision theory 309, 1092
Declining catch rate 287
Deconvolution 389
Delaunay 224
Delayed recovery 469
Dependent censoring 369
Dependent competing risks 818
Design 720
Detectability 732
Detection function 1133
Detection probability 1116
Diagnostic 853
Diagnostic tests 158, 1010, 1050
Difference of proportions 963
Dinosaur bones 260

Directional data 260
Dirichlet distribution 150
Discrete data 88
Discrete hazard function 829
Discrimination 571
Disease mapping 949
Disease outbreaks 420
Disordinal interaction 1160
Dissimilarity measures 441
Distance sampling 727, 1133
Diurnal variation 189
DNA profiles 750
DNA sequence analysis 420
DNA sequences 441
Dose escalation 1019
Dose finding 914
Dose-finding studies 1019
Dose–response effect 671
Dose uncertainty 689
Dosimetry 689
Double sampling 333
Doubling sampling 899
Downturn order 1222
Dropouts 333
Drug discovery 922
Dual effects 178

ECM algorithm 53
Ecological model 240
Edge detection 232
Efficacy and toxicity 1041
Efficacy studies 1019
EM 414
EM algorithm 34, 43, 53, 245, 427, 714
Emigration 273
Empirical Bayes 1176
Environmental epidemiology 698
Environmental monitoring 571
Environmental statistics 203
Epidemiological methods 182, 663
Equiprobability model 435
Equivalence 1260
Eretmochelys imbricata 1116
Errors in variables 53, 689, 803
Erythroid 420
Estimating equation 354, 546, 875
Estimation 589
ET test 535
Ethics 909
Exact confidence interval 478
Exact inference 172
Exact p-value 478
Exact test 941, 963
Expected treatment failures 909
Exponential regression 663
Exposure standards 698
Exposure variable 671
Extended p-value 535

Factor analysis 302, 787
Factor model 1260
Failure time data 245
Feature extraction 232
Fecundability 1069
Feedback 803
Fertility 1069
Finite mixture 490
Fisher scoring algorithm 714
Fisher's combination test 172
Fisher's exact test 535
Food storing in birds 1255
Four-parameter log-logistic model 571
Fragile site 435
Fully nonparametric hypotheses 88
Functional data analysis 253
Functional magnetic resonance imaging 554
Functional model 53
Futility stopping rules 972

G^{ρ} family 875
Gain function 309
Gametic association 535
General linear model 1176
Generalized additive mixed model 949
Generalized additive model 539
Generalized estimating equations 15, 120, 449, 529, 1201
Generalized linear mixed model 96, 539, 1260
Generalized linear models 53, 120, 529
Genetic marker studies 813
Genetic markers 757
Genetic recombination 427
Genetic variation 449
Genotypic data 1083
Geographic epidemiology 949
Gibbs sampler 22
Gibbs sampling 43, 383, 829, 1061
Gill net fishery 287
Gittins Index 309
Givens angles 1176
GLM 1169
GLMM 1169
Global influence 7
Global optimization 240
Global two-stage estimation 294
Gold standard 158
Goodness-of-fit test 1249
Greenwood's formula 282
Group sequential designs 972
Group sequential test 589, 886
Group sequential trials 892
Group testing 922
Growth 469

Haplotype analysis 769
Hardy–Weinberg disequilibrium 764
Hawksbill sea turtles 1116
Hidden Markov model 546, 1076
Hierarchical clustering 435
Hierarchical models 803
Hierarchical prior 1176
Historical controls 302
Historical data 383
Hit rate 922
HIV 449, 818, 1249
HIV clinical trials 1019
HIV subtypes 74
Hormones 62
Human brain mapping 554
Hyphae 232
Hypothesis test 861, 972
Hypothesis testing 260

Identification 1260
Image analysis 232
Immunoassay 571
Immunoepidemiology 135
Importance sampling 294
Improper distribution 844
Incomplete data 22
Independence test 508
Indifference zone 1041
Induced relative risk 414
Inequality constrained test 1160
Infant mortality 949
Infinite estimates 114
Influential observations 1169
Influential subjects 1169
Information matrix 720
Informative missingness 302, 396
Inhomogeneous point processes 508
Inhomogeneous Poisson process 502
Integrated data 469
Intercourse diaries 1069
Interim analysis 886
Interim power analysis 625
Interobserver agreement 584
Interpretation 663
Interval censoring 74, 396, 671, 868, 1249
Intraclass correlation coefficient 1151
Inverse probability of censoring weighted estimation 404
Inverse weighting 1210
IQ 1188
Isotropy 211

Jaccard's index 743
Joint estimating equation 1109
Joint maximization 34
Joint models 563
Jolly–Seber 273

Kaplan–Meier 1210
Kaplan–Meier estimate 875
Kaplan–Meier estimator 369, 404, 868
Kernel density estimation 1133
Kernel function 211
Kinship inference 757
Kullback–Leibler discrepancy 441

Laplace distribution 957
Latency 396

Latent class model 158
Latent class models 714
Latent variable 203, 1061
Latent variables 43, 302, 383
Lead poisoning 203
Lead time 389
Leukemia 914
Leukemia incidence data 143
Likelihood 273, 689, 1242
Likelihood displacement 1169
Likelihood ratio statistic 260
Likelihood ratio tests 1010
Line transect 727, 1133
Line transect surveys 732
Linear mixed model 7
Linear rank test 567
Linear regression 53
List errors 707
Local influence 1169
Local test 508
Logistic distribution 957
Logistic functions 189
Logistic regression 34, 126, 663
Log-linear models 663, 707
Log-rank statistic 369
Log-rank test 837
Longitudinal data 81, 103, 253, 449, 795, 1176
Longitudinal data analysis 1188
Long-tailed distribution 1160
Long-term survivors 844
Loss to follow-up 333

Mahalanobis distance 441
Major gene 764
Mammograms 1010
Marginal likelihood 829
Marginal modeling 714
Marginal models 88
Markov chain 441, 518, 993
Markov chain Monte Carlo 22, 81, 143,158, 502
Markov counting process 620
Markov process 868
Markov property 769
Mark–recapture 1116
Mark–recapture–recovery analysis 469
Martingale 376
Martingale process 1002, 1031
Martingale processes 861
Martingales for counting processes 88
Matched case–control study 1109
Matched design 62
Matching coefficient 495
Mating design 764
Max accumulated $\chi 2$ 769
Max one-to-others $\chi 2$ 769
Maximal tolerated dose 914
Maximization 484
Maximum likelihood 563, 764
Maximum likelihood estimation 427
Maximum likelihood estimator 743
Maximum matching in bipartite graph 495
Maximum weighted Kaplan–Meier test 837
MCMC 554
MDRD study 354
Mean square error 957
Measurement error 62, 203, 689, 732, 803
Median ranked set sampling 957
Meiosis 427
Menstrual cycle 1069
M-estimation 266
Meta-analysis 671
Method of moments 732
Metropolis–Hastings algorithm 502, 829
Migration 469
Minimum attainable distance 495
Minke whales 750
Misclassification 598, 610, 1126
Mismatch of lists 707
Missing at random 414, 1194
Missing covariates 34
Missing data 7, 15, 22, 43, 689
Mixed continuous and polytomous data 787
Mixed effects 266
Mixed effects models 354, 1232
Mixed model 1141
Mixed Poisson model 197
Mixture 260
Mixture genetic model 764
Mixture model 282
Mixture models 779
Mixture proportion 813
Model comparison 829
Model dependence 698
Model selection 120, 518, 577
Modified Pearson statistic 1257
Modified ranked set sampling 957
Modified score 114
Monte Carlo 508, 518
Monte Carlo EM algorithm 787
Most powerful invariant test 1083
Multilevel data 302
Multilevel model 96
Multilists 707
Multimodality 795
Multiple events 369
Multiple hypothesis testing 435
Multiple marginal independence 1257
Multiple rater 584
Multiple regression 698
Multiple response 1257
Multiple surveys 461
Multiple testing 892
Multiple treatments 892
Multiplicative effects 178
Multiplicative model 1141
Multivariate 81
Multivariate binomial logit-normal model 1260
Multivariate calibration 571
Multivariate integrated moving average 22
Multivariate normal 22
Multivariate response 1041

National Toxicology Program 1222
Near singularity 720
Nearest neighbor 577
Negative binomial 219
Nest study 1061
Nested curves 1232
Network algorithm 941
Neyman allocation 909
Neyman–Scott process 224
Nodal parameter 1222
Noncompliance 103, 899
Nondisjunction 1076
Nonidentifiability 598
Nonlinear least squares 189
Nonlinear mixed effect model 294
Nonlinear model fitting 240
Nonlinear regression 53, 571
Nonnested models 829
Nonparametric 490
Nonparametric estimation 1050
Nonparametric inference 757
Nonparametric maximum likelihood 53, 74
Nonparametric model 813
Nonparametric modeling 189, 518
Nonparametric regression 211, 518
Nonparametric tests 189
Nonstationarity 508
Normal curvature 7
Normal distribution 957
NPMLE 1249
Numerical integration 972, 1242, 1260

Observational study 1031, 1210
Odds ratio 484, 663, 963
One-sided test 1160
Open populations 273, 1116
Optimal design 899
Optimal weightings 461
Optimality 168
Order restrictions 1069
Ordered alternatives 1222
Order-restricted inference 1160
Outliers 266
Overdiagnosis 389
Overdispersion 150, 197
Overfly survey 461
Ovulation 1069

Pairwise rank likelihood 813
Paleoflow direction 260
Parameter constraints 1188
Parameter redundancy 720
Parametric models 732
Partial knowledge 1255
Partial likelihood 1194
Pattern-mixture models 103
Pearson's coefficient 1242
Pedigree analysis 757
Penalized likelihood 114
Penalized quasi-likelihood 197

Penalized spline 539
Perinatal transmission 1050
Periodontal disease 126
Permutation test 211, 567
Person-year tables 689
Perturbation approximation 720
Phase I studies 168
Phase I trial 914, 1019
Phase II clinical trial 1194
Phase II trial 1019
Pick any data 1257
Piecewise exponential 383
Point estimate 172
Point process 224
Point source 143
Poisson process 287, 461
Poisson regression 663, 689, 1169
Poisson regression model 219
Pollen forecasting 539
Poly-3 trend test 1222
Polychotomous logistic regression 671
Polygon decomposition 502
Pooling 922
Population attributable risk 182
Population dynamic model fitting 240
Population process 546
Posterior distribution 383
Potential outcomes 333
Power 909
Power study 197
Prediction rules 632
Predictive distribution 803
Principal stratification 899
Prior information 803
Probability of causation 182
Profile 484
Profile likelihood 114, 714
Promoters 420
Propensity score 1210
Proportion 963
Proportional hazards model 114, 844, 1249
Proportional odds 396
Proportional probability model 435
Prostate cancer 62
Pseudolikelihood 74, 750
Publication delays 1

Quadratic form 211
Quality assurance comparisons 620
Quality of life 376, 861, 868
Quasi-likelihood 120, 529

Random effect models 1188
Random effects 96, 795, 1169
Random effects model 158, 949
Randomized play-the-winner rule 909
Rank-based estimation 178
Rare clustered populations 1099
Ratio estimation 461
Recurrent events 369
Regression 81, 853
Regression calibration 414, 689
Regression effect 178
Regression method 577
Regularity 224
Regulatory regions 420
Relatedness inference 1083
Relative precision 957
Relative risk 182, 663, 963
Reliability 931
Renal disease 354
Repeated binary data 610
Repeated measurements 266
Repeated measures 15
Repeated measures models 88
Reproducibility 931
Reproductive toxicity 302
Resampling method 577
Residential hazards 203
Residual familial correlation 245
Residual maximum likelihood 96, 1141
Restricted lifetime 1031
Restricted randomization 461
Restricted roving window 287
Reversible jump 518
Review times 1
Right censoring 868
Ring recovery data 720
Risk assessment 182, 663
Risk regression 182, 663
Robust design 273
Robust Wald statistics 1201
Rotations 508
Roving survey 287, 461
Rubin causal model 333

Sample size 309, 584
Sample size adjustment 172
Sample-size modification 625
Sampling with selection 178
Sandwich estimator 1201
Sandwich variance 245
Saturation 287
Scale change 853
Scan statistic 420
Score test 219
Screening 168
Screening clinical trials 837
Seasonal effects 22
Secondary parameter 589
Segmentation 232
Selection 1092
Selection bias 103, 1109
Selection models 103
Semiautomatic methods 232
Seminonparametric density 795
Semiparametric efficiency 1002
Semiparametric mixed effects model 795
Semiparametric mixture model 53
Semiparametric model 383, 844
Semiparametric models 554, 779
Sensitivity 158, 610
Sensitivity analysis 135
Separation 114
Sequential design 309, 909
Sequential ignorability of censoring 404
Sequential ordinal probit and logit 829
Sequential sampling designs 1099
Sequential trials 168
Similarity index 743
Simple order 1222
Simple tree order 1222
Simulated annealing 240
Simulation study 126
Simulations 1
Singular-value decomposition 1188
Sinusoid 189
Size 224
Size bias 732
Size dependency 469
Skewness 795
Small sample size 1201
Smallest eigenvalue 720
Smoothing parameter 383
Smoothing techniques 211
Snakes 232
Soft tissue sarcoma 168
Sojourn time 389
Space-time clustering 420
Spatial analysis 1141
Spatial autocorrelation 197
Spatial count data 143
Spatial data 211
Spatial pattern 508
Spatial statistics 224
Spatial-temporal smoothing 949
Spatiotemporal models 554
Species diversity 743
Species map 495
Specificity 158, 610
Spline 253
Standardized Euclidean distance 441
Stationarity 211
Stein's procedure 625
Stem cell 546
Stochastic integral 1031
Stochastic optimization 240
Stopping rules 1099
Structural model 53
Surrogate endpoints 81
Surrogate information 34
Survival 1116
Survival analysis 1, 81, 96, 114, 369, 396, 563, 689, 861, 868, 1002, 1031, 1210
Survival curve comparisons 837
Survival data 844, 853
Symmetric distributions 957

Tail method 963
T-cell infusion 914
Terrestrial survey 727
Tessellation reconstruction 502
Thiessen polygon 502
Three-state model 396

Threshold model 1126
Tiger bush 508
Time to event 81
Time-to-event response 1050
Time-varying effects model 875
Tocher's test 535
Total catch 461
Toxicity 1019
Toxicological response experiments 620
Toxicology data 150
Trails 727
Training sample prior 829
Transcription factors 420
Transformation models 875
Transformations 1188
Transportability 203
Triangular distributions 518
Trimming 376
Truncation 74, 681, 1061
Two- and three-way associations 769
2×2 tables 535
Two-level latent variable models 787
Two one-sided tests 478
Two-sample test 361, 844
Two-sided tests 535
Two-stage designs 34
Type I error 584
Type I error rate 172

Umbrella order 1222
UMPU test 535
Unbiased estimation 1099
Unbiased estimators 957
Uncontrolled studies 178
Underdispersion 620
Uniparental disomy 1076
Unordered categorical covariates 632
U-statistic 376
Uterine fibroids 396

Vaccine design 135
Variance 282
Variance components 1151
Variety by environment data 1141
Variogram 211
Varying-coefficient model 539
von Mises distribution 260
Voronoi tessellation 143, 502

Wald tests 1010

Years-of-life-saved statistic 361

Zero-inflated log normal 681
Zero inflation 219